

What is claimed is:

1. A self contained printer for producing rolls of wallpaper, comprising:

a cabinet in which is located a media path which extends from a media cartridge loading area to a winding
5 area;

a full width digital color printhead located in the media path;

a processor which accepts operator inputs which are used to configure the printer for producing a particular
roll; and

the winding area adapted to removably retain a core and wind onto it, wallpaper produced by the printer.

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2. A self contained printer as claimed in claim 1, further comprising:

an internal dryer, the dryer located between the printhead and the winding area and adapted to blow hot air
onto a printed media web.

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3. A self contained printer as claimed in claim 1, further comprising:

a cutting mechanism located between the printhead and the winding area and adapted to divide with a
transverse cut, a media web in accordance with instructions provided by the processor.

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4. A self contained printer as claimed in claim 1, further comprising:

a slitting mechanism located between the printhead and the winding area and adapted to longitudinally slit a
media web in accordance with instructions provided by the processor.

5. A self contained printer as claimed in claim 1, further comprising:

25 a bar code scanner which communicates with the processor and through which operator preferences are input.

6. A self contained printer as claimed in claim 1, further comprising:

a well, external to the cabinet and adjacent to an exit slot;

the well having at each end, spindles for aligning, retaining and removing a core, and for rotating the core

30 according to instructions provided by the processor.

7. A self contained printer as claimed in claim 1, further comprising:
on a front exterior surface of the cabinet, a video display for displaying information about wallpaper that the printer may print.

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8. A self contained printer as claimed in claim 7, wherein:
the video display is a touchscreen which can receive operator selections for use by the processor.

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9. A self contained printer as claimed in claim 1, wherein:
the media cartridge loading area further comprises a location for a media cartridge, in which a media cartridge dispensing slot is adjacent to the path.

15 10. A self contained printer as claimed in claim 9, wherein:

the media cartridge loading area further comprises one or more locations where a media cartridge can be stored.

11. A self contained printer as claimed in claim 1, wherein:

20 the printhead is mounted on a rail on which it slides into and out of a printing position across the path.

12. A self contained printer as claimed in claim 11, wherein:

the printhead is a multi-color printhead which is supplied by separate ink reservoirs, the reservoirs connected to the printhead by a number of ink supply tubes, there being a tube disconnect coupling between the 25 reservoirs and the printhead.

13. A self contained printer as claimed in claim 11, further comprising:

an air supply and a tube for bringing a supply of air to the printhead which supply prevents media from sticking to the printhead.

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14. A self contained printer as claimed in claim 11, further comprising:
a capper motor, the capper motor driving a capping device;
the capping device sealing the printhead when not in use in order to prevent contamination from entering the
printheads.

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15. A self contained printer as claimed in claim 14, wherein:
the capper device further comprises a blotter, which moves into and out of position and which is used for
absorbing ink fired from the printheads.

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16. A self contained printer as claimed in claim 11, further comprising:
one or more rail microadjusters for accurately adjusting a gap between the printhead and the media onto
which it is printing.

17. A self contained printer as claimed in claim 1, wherein:

15 the path comprises a generally straight path.

18. A self contained printer as claimed in claim 1, further comprising:
a pre-heater platen located under the path and before the printhead.

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19. A self contained printer as claimed in claim 2, further comprising:
a door which covers an opening into a lower compartment of the dryer;
the door being moveable from a closed position which covers the opening, to an open position in which the
media passes through the opening into the lower compartment and out of the compartment, also through the
opening.

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20. A self contained printer as claimed in claim 4, wherein:
the slitting mechanism further comprises a pair of rotating end plates between which extend a number of
transverse shafts, each shaft having one or more cutting disks, the end plates rotatable so that any shaft can be
selected, or that no shaft be selected for cutting the media web.

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21. A self contained printer as claimed in claim 1 wherein the wallpaper is printed by the printhead at a rate exceeding 0.02 square meters per second (775 square feet per hour).

22. A self contained printer as claimed in claim 1 wherein the wallpaper is printed by the printhead at a rate exceeding 0.1 square meters per second (3875 square feet per hour).

5 23. A self contained printer as claimed in claim 1 wherein the wallpaper is printed by the printhead at a rate exceeding 0.2 square meters per second (7750 square feet per hour).

10 24. A self contained printer as claimed in claim 1 wherein the printhead has more than 7680 nozzles.

25. A self contained printer as claimed in claim 1 wherein the printhead has more than 20,000 nozzles.

26. A self contained printer as claimed in claim 1 wherein the printhead has more than 100,000 nozzles.

15 27. A self contained printer as claimed in claim 1 wherein the printhead has more than 250,000 nozzles.

28. A self contained printer as claimed in claim 1 wherein the printhead prints ink drops with a volume of less than 5 picoliters.

20 29. A self contained printer as claimed in claim 1 wherein the printhead prints ink drops with a volume of less than 3 picoliters.

30. A self contained printer as claimed in claim 1 wherein the printhead prints ink drops with a volume of less than 1.5 picoliters.

25 31. A self contained printer as claimed in claim 1 wherein the media cartridge, comprises:
a case in which a roll of blank media may be deployed;
the case having two halves, hinged together, an area between the two halves, when closed, defining a media
30 supply slot; and

the case having internally and adjacent to the slot, a pair of rollers, at least one of the rollers being a driven roller which is supported at each end, by the case, for rotation by an external motor.

32. A self contained printer as claimed in claim 1 wherein a roll of wallpaper produced by the printer can be
5 put into a consumer tote, the tote comprising:

a disposable exterior in which is formed a main access flap and a pair of core access openings; and
the tote having an interior in which is located a disposable core which is aligned with the access openings.

33. A self contained printer as claimed in claim 1 further including a transverse cutter comprising:

10 a chassis having end plates;

the end plates being separated to allow a web of media to pass between them;

the end plates supporting between them a cutting blade; and

the blade supported at each end to perform a cutting motion which begins on one side of the web and finishes on an opposite side of the web.

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34. A self contained printer as claimed in claim 1 further including a slitting mechanism, the slitting mechanism comprising:

a chassis having end plates;

the end plates being separated by a transverse portion of the chassis to allow a web of media to pass between
20 them;

one or more rotating slitting shafts extending between the end plates, each shaft having one or more slitters arranged along its length, each slitter having a cutting edge; and

the slitting mechanism selectively engageable to either enter or not enter a path followed by the web according to an input provided by an operator of the printer.

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35. A self contained printer as claimed in claim 1 further including a dryer comprising:

a compartment with a top opening for receiving a media web fed from the printer;

a source of heated air located above the top opening for blowing heated air into the opening to dry printing on the media web.

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36. A self contained printer as claimed in claim 1 wherein,

the length and design of the roll are determined by the operator inputs.

37. A self contained printer as claimed in claim 1 wherein during use the printers operation comprises

5 the steps of:

utilizing an on-demand printer comprising a cabinet in which is located a media path which extends from a media loading area to a winding area, there being a printhead located in the media path, a processor which accepts operator inputs from one or more input devices;

using one or more input devices which communicate with the processor to capture data from an operator

10 regarding a specification for an operator's requirements;

using the processor to operatively control the printer according to the data; and

printing a single roll of wallpaper, on demand, according to a selected pattern.

38. A self contained printer as claimed in claim 1 used in a method for operating a wallpaper printing

15 business, the method comprising the steps of:

utilizing an on-demand printer comprising a cabinet in which is located a media path which extends from a media loading area to a printhead and from the printhead to a dispensing slot;

using one or more printer input devices which communicate with a processor to capture data regarding one or more customer's requirements;

20 the data comprising at least a customer selected pattern;

printing a roll of wallpaper, onto a web of blank media, on demand, according to the selected pattern; and charging a customer for the roll.

39. A self contained printer as claimed in claim 1 used in a method for operating a wallpaper printing

25 franchise, the method comprising the steps of:

providing to franchisees, an on-demand printer comprising a cabinet in which is located a media path which extends from a media loading area to a printhead and from the printhead to a dispensing slot;

the printer having one or more printer input devices which communicate with a processor to capture data regarding one or more customer requirements, the data comprising at least a customer selected pattern;

providing the franchisee with a collection of patterns in a digital storage medium that can be read by the printer;

enabling the franchisee to print a roll of wallpaper, onto a web of blank media, on demand, according to the selected pattern; and

5 obtaining or attempting to obtain a fee from the franchisee.

40. A self contained printer as claimed in claim 1 further including:

a frame in which is located a media path which extends from a media loading area to a winding area; a printhead located across the media path;

10 one or more input devices for capturing operator instructions;

a processor which accepts operator inputs which are used to configure the printer for producing a particular roll; and

the winding area adapted to removably retain a core and wind onto it, wallpaper produced by the printer.

15 41. A self contained printer as claimed in claim 1 used in a method for printing wallpaper onto a web of media, the method comprising the steps of:

utilizing an on-demand printer comprising a cabinet in which is located a media path, there being a full width printhead located across the media path, there being a processor which accepts operator inputs from one or more input devices and which controls the printer;

20 using one or more input devices which communicate with the processor to capture data from an operator regarding a specification;

running the printer according to the data;

printing a single roll of wallpaper, on demand, according to a selected pattern and configuration;

changing the pattern according to a new datum from an operator; and

25 then printing a new roll onto the same web.

42. A self contained printer as claimed in claim 1 used in a method for drying a moving web of media in a printer such as a wallpaper printer, the method comprising the steps of:

loading the web in a path that traverses a compartment in a dryer within the printer, the compartment having

30 an opening across the top;

allowing the moving web to descend into the compartment, as required; and
blowing heated air from above the opening.

43. A self contained printer as claimed in claim 1 used in a method of supplying a media web to a
5 wallpaper printer, the method comprising the steps of:
opening a reusable case;
placing into the case a core onto which has been located a supply roll of blank wallpaper media;
supporting the core for rotation within the case;
leading a free edge of the roll between a pair of rollers and past an edge of the open case; then
10 with the rollers located within the case and on either side of the web, closing the case and loading it into a
printer.

44. A self contained printer as claimed in claim 1 wherein the printhead is supplied with a number of
different inks which are remote from the printhead and which supply the printhead through tubes.
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45. A self contained printer as claimed in claim 1 further comprising:
a housing in which is located a media path which extends from a blank media intake to a wallpaper exit slot;
a multi-color roll width removable printhead located in the housing and across the media path;
the printhead being supplied by separate ink reservoirs, the reservoirs connected to the printhead by a an ink
20 supply harness, there being a disconnect coupling between the reservoirs and the printhead;
one or more input devices for capturing operator instructions;
a processor which accepts operator inputs which are used to configure the printer for producing a particular
roll.

25 46. A self contained printer as claimed in claim 1 wherein a roll of wallpaper produced by the printer can
be put into a consumer tote, the tote comprising:
a disposable exterior in which is formed a main access flap and a pair of core access openings;
the tote having an interior in which is located a disposable core which is aligned with the access openings;
both openings exposing a moulded coupling, one coupling attached to each end of the core, at least one of the
30 couplings being a driven coupling and adapted to engage a driving spindle that rotates the core.

47. A self contained printer as claimed in claim 1 wherein the printhead is a removable printhead assembly, comprising:

a full width stationary printhead located on a rail along which it slides for service and removal;

5 a number of replaceable ink reservoirs which supply the printhead with different inks;

the printhead comprising a color printhead which is at least as wide as the web; and

the printhead being supplied with the different inks through tubes which can be disconnected so the printhead may be removed.

10 48. A self contained printer as claimed in claim 1 wherein the printer is self threading and further comprises:

a media loading area adapted to support a media cartridge in a position so that a media supply slot of the cartridge is closely adjacent to a pilot guide;

a cabinet housing a media path which extends from the pilot guide to a printed media dispensing slot;

15 a printhead located across the media path;

a processor which accepts operator inputs which are used to configure the printer for producing a particular roll;

a motor within the cabinet for advancing a media web out of the media cartridge; and

one or more other motors adapted to urge the media along the path and out of the slot.

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49. A self contained printer as claimed in claim 1 used in a method for producing wallpaper on-demand, the method comprising the steps of:

utilizing an on-demand printer comprising a cabinet in which is located a media path which passes a printhead on the way to a dispensing slot;

25 selecting a pattern and a configuration;

using one or more printer input devices which communicate with a processor to input the pattern and the configuration; and

printing a roll of wallpaper, onto a web of blank media, on demand, according to the selected pattern and configuration.

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